

only information that is contained in the segment metadata and program metadata, further embodiments may also display indications of the probable viewer interest in particular programs and segments generated by the affinity calculator or an analogous process using the program and segment metadata and viewer preference data. The generation of interest level data is preferably performed independently from user interface processing so that viewer interest level data may simply be retrieved from the database as needed. However, these embodiments may also be implemented such that viewer interest levels for particular programs and segments are calculated on an as needed basis.

[0080] FIGS. 17a and 17b show an interactive program guide in accordance with a ninth embodiment of the invention. This embodiment provides an example of the inclusion of interest level data in the program guide. This embodiment differs from the embodiment of FIGS. 8a and 8b in that the segment window displays viewer interest level information 116 for the segment on which the cursor is located. The viewer interest level information 116 includes an indication of overall interest level based on the viewer's viewer profile data (represented as three stars to indicate high interest), a category from the viewer's viewer profile that contributed most significantly to the determination of the interest level ("Earnings"), and a keyword (if any) from the viewer's viewer profile that contributed most to the determination of the interest level ("IBM"). As shown in FIG. 17b, navigation of the cursor to a new segment produces a display of interest level information 116 for the new segment. Although not shown in FIGS. 17a and 17b, similar interest level information may be provided for whole programs as well as for program segments. Accordingly, the viewer may navigate among programs and program segments in the guide to view assessments of the likely level of interest in each program and segment. Similar information may be included in the various alternative program guides and program banners described herein.

[0081] FIG. 18 shows an example of an interactive program banner in accordance with a tenth embodiment of the invention. This embodiment provides an example of the inclusion of interest level data in a program banner. This embodiment differs from the embodiment of FIGS. 13a and 13b in that the segment field column 106 includes an additional set of color coded interest level fields 118 that represent the interest level calculated for each segment. These fields enable the viewer to quickly determine which segments of the program are of particular interest and which are not. Similar fields may be incorporated into the program guide of FIGS. 11a-11b and the program banner of FIGS. 14a-14b.

[0082] Color coded interest level information may be incorporated into banners and guides in other manners as well. For example, segment fields themselves in a guide or banner may be colored to represent a viewer interest level. Program fields in a guide may also be colored in a similar manner. Color codes may also be associated with identifiers of programs and segments in other manners to indicate levels of interest. In addition, color coding may be used in combination with other representations of interest level such as those shown in FIGS. 17a-17b. These various representations of interest level may also be included in the various alternative program guides and program banners described herein.

[0083] The aforementioned program guide embodiments and program banner embodiments and alternative embodiments may be implemented with a find feature as discussed above. The find feature searches for upcoming programs and segments based on the characteristics of a program or segment on which the cursor is located in the guide or in a program banner. In alternative embodiments the find feature may also be accessed directly during viewing of a live or recorded program to find additional programs and segments like the currently viewed program or segment. As described above, the find process may be executed automatically in response to a find command based on features included in the metadata of a specified or currently viewed program or segment. Alternatively, an advanced find feature may be provided that enables the user to specify which categories, keywords, actors and directors are to be used in the search.

FIG. 19 shows an example of a user interface generated for an advanced find feature in accordance with an eleventh embodiment of the invention. The user interface 120 displays all or a selected subset of the categories, keywords, actors and/or directors listed in the metadata for a program or segment. The example of FIG. 19 shows categories and keywords from the segment metadata illustrated in FIG. 4. The user interface also includes fields 122 that are navigable by the user, and that may be selected to indicate that the corresponding category, keyword, actor or director is to be used in searching for similar programs and segments. In the example of FIG. 19, the user has selected the categories "business" and "technology" and the keywords "Dell" and "Cisco" as search criteria. The user interface 120 further includes a find button 124 that can be navigated to and selected to initiate the search. The results of the search are then used to generate a display showing programs and segments matching the specified criteria. The display may be presented in the form of a navigable program grid, or may be provided in another form such as a searchable list.

[0084] The aforementioned program guide embodiments and program banner embodiments and alternative embodiments may also be implemented with an update preferences feature as discussed above. The update preferences feature updates stored viewer preferences to indicate an approval or disapproval of subject matter like that of a program or segment on which the cursor is located in the guide or in a program banner. In alternative embodiments the update preferences feature may also be accessed directly during viewing of a live or recorded program to indicate a preference with respect to the currently viewed program or segment. As described above, the update preferences process may be executed automatically in response to an update command based on features included in the metadata of a specified or currently viewed program or segment. Alternatively, an advanced update feature may be provided that enables the user to specify which categories, keywords, actors and directors are to be used in updating the viewer profile. FIG. 20a shows an example of a user interface generated for an update preferences feature in accordance with a twelfth embodiment of the invention. The user interface 130 displays all or a selected subset of the categories, keywords, actors and/or directors listed in the metadata for a program or segment. The example of FIG. 20a shows categories and keywords from the segment metadata illustrated in FIG. 4. The user interface also includes fields 132 that are navigable by the user, and that may be selected to indicate that the corresponding category, keyword, actor or